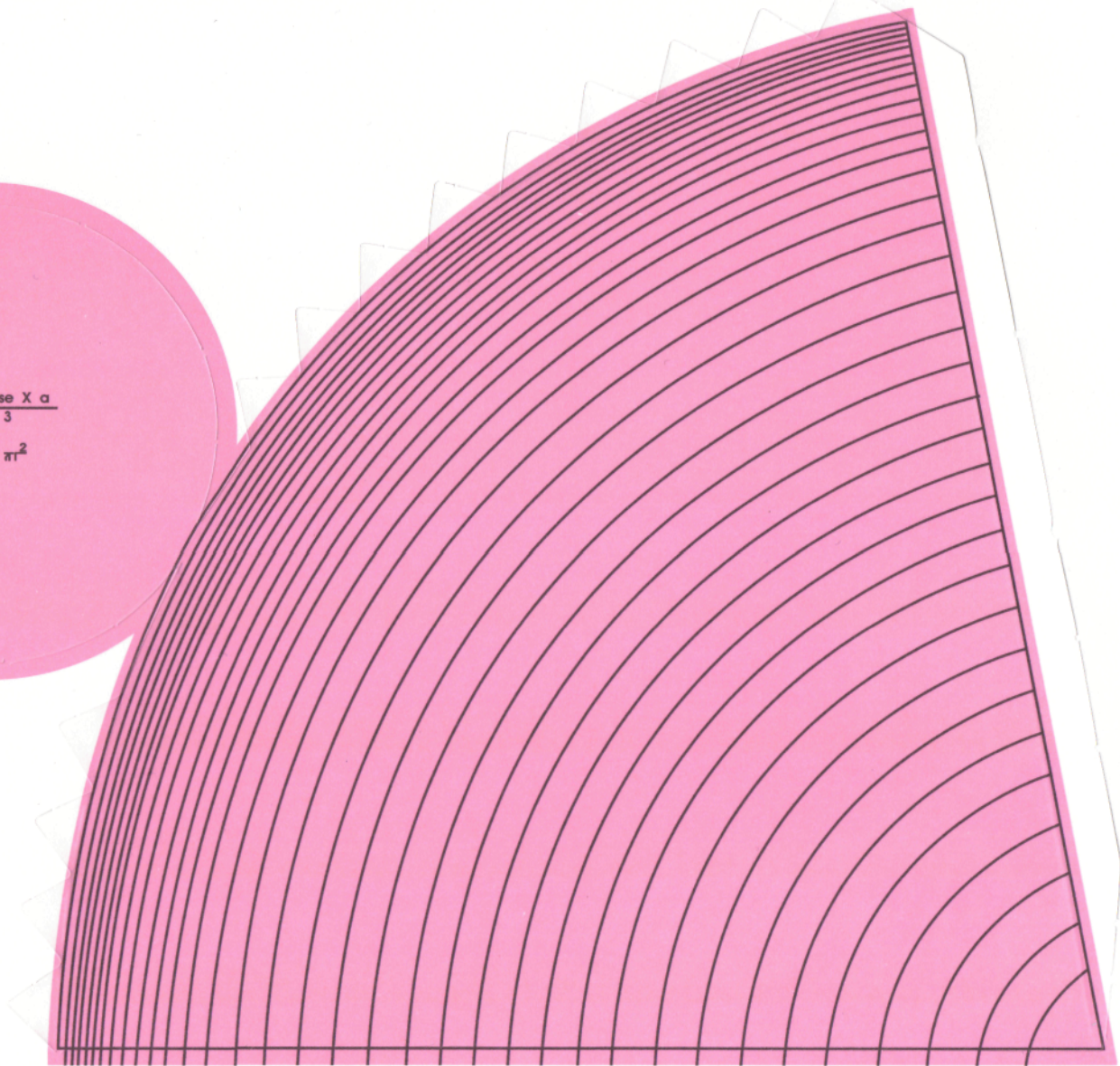
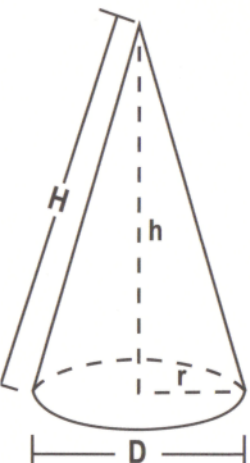


# 1 Cono

g = generatriz  
h = altura del cono  
r = radio de la base  
Área de la base =  $\pi r^2$   
Área lateral =  $\pi r g$   
Volumen =  $\frac{\pi r^2 h}{3}$

$$v = \frac{\text{S. base} \times a}{3}$$

$$\text{S. BASE} = \pi r^2$$

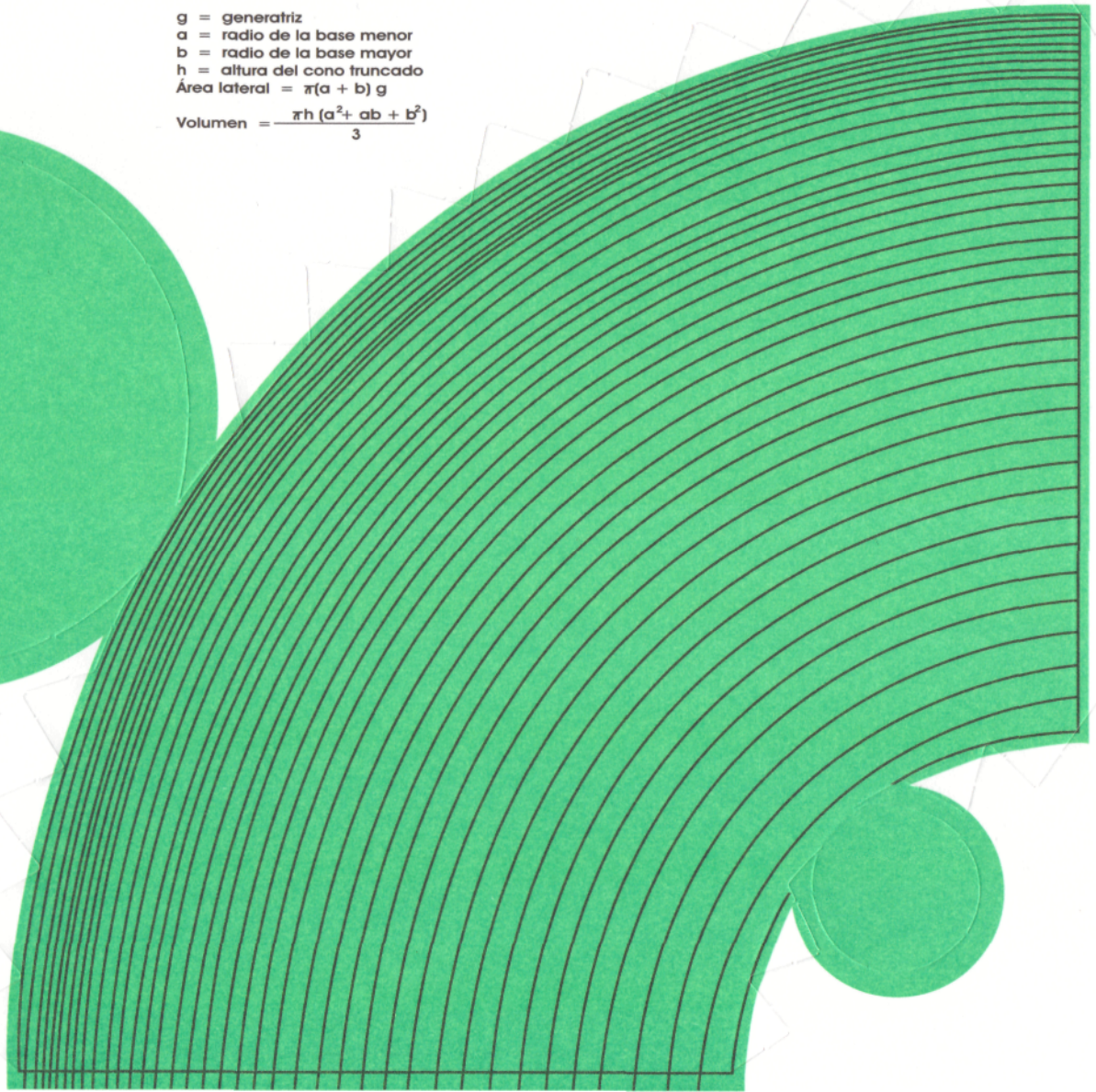
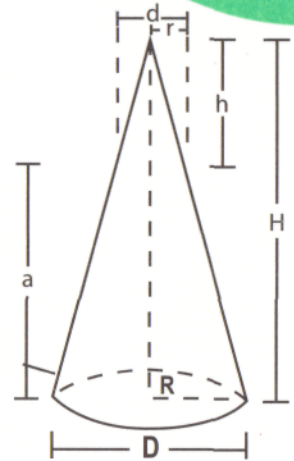
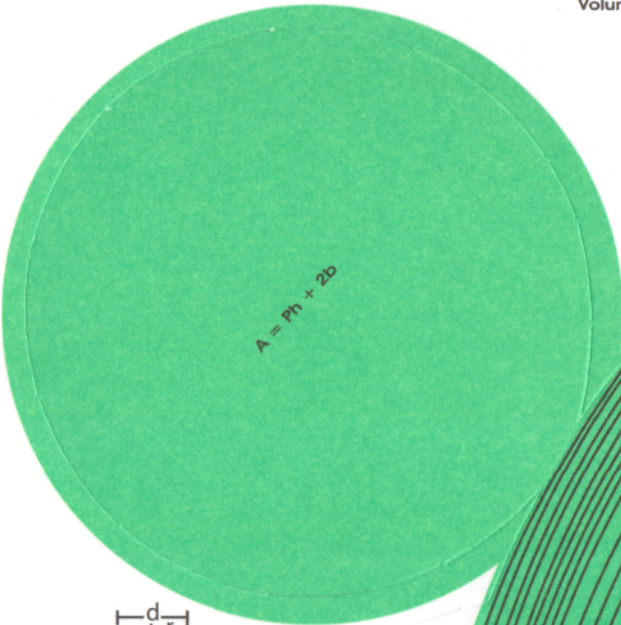




## 2 Cono truncado

g = generatriz  
a = radio de la base menor  
b = radio de la base mayor  
h = altura del cono truncado  
Área lateral =  $\pi(a + b)g$

$$\text{Volumen} = \frac{\pi h (a^2 + ab + b^2)}{3}$$





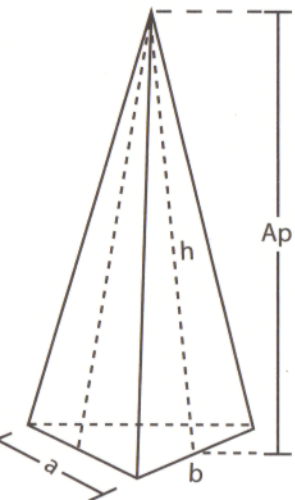
### 3 Pirámide triangular

$h$  = altura de la pirámide  
 $a$  = apotema de la pirámide  
 $b$  = lado de la base equilateral

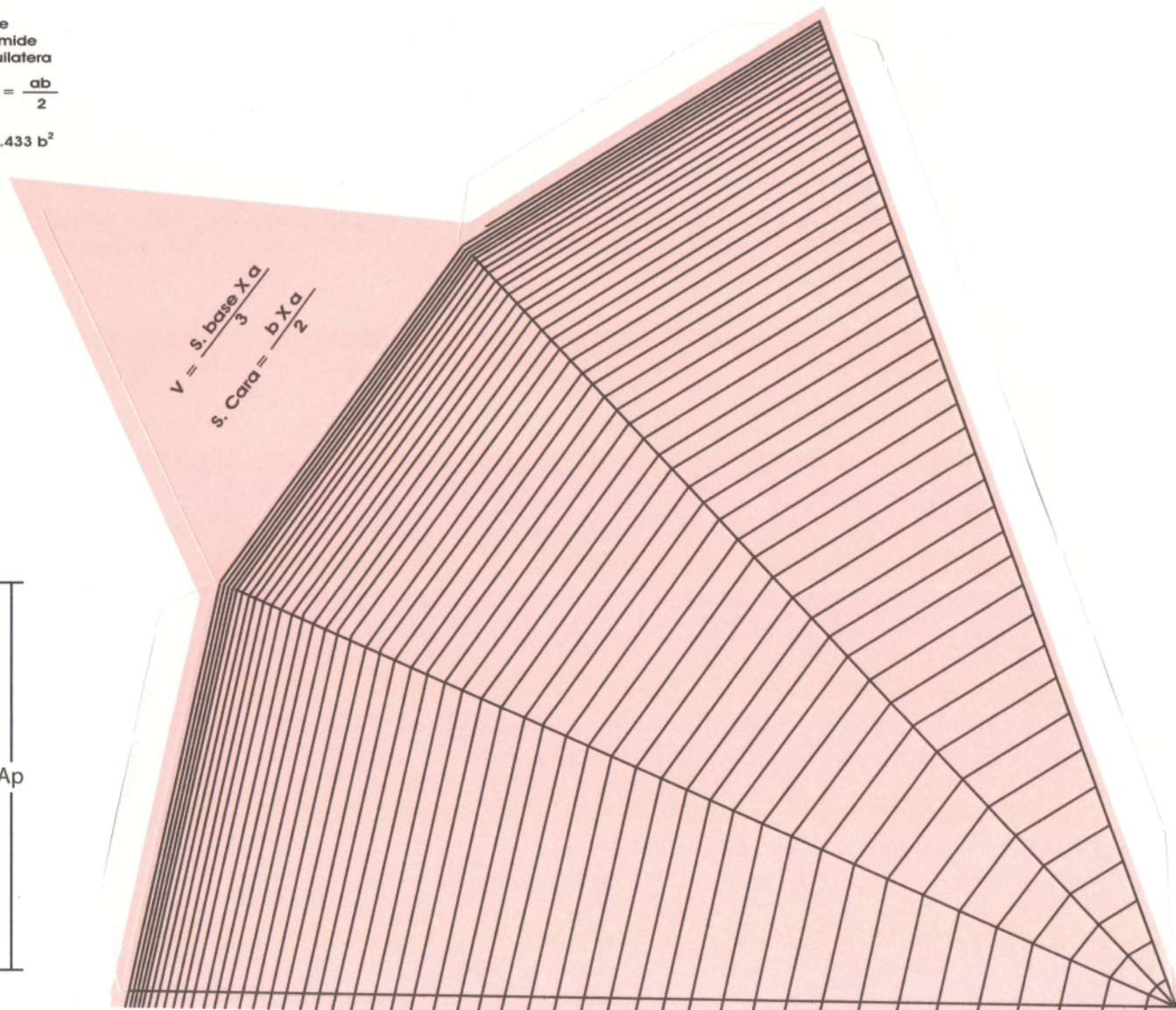
$$\text{Área de una cara lateral} = \frac{ab}{2}$$

$$B = \text{Área de la base} = 0.433 b^2$$

$$\text{Volumen} = \frac{B h}{3}$$



$$V = \frac{s. \text{ base} \times a}{3}$$
$$s. \text{ Cara} = \frac{b \times a}{2}$$





#### 4 Pirámide cuadrangular

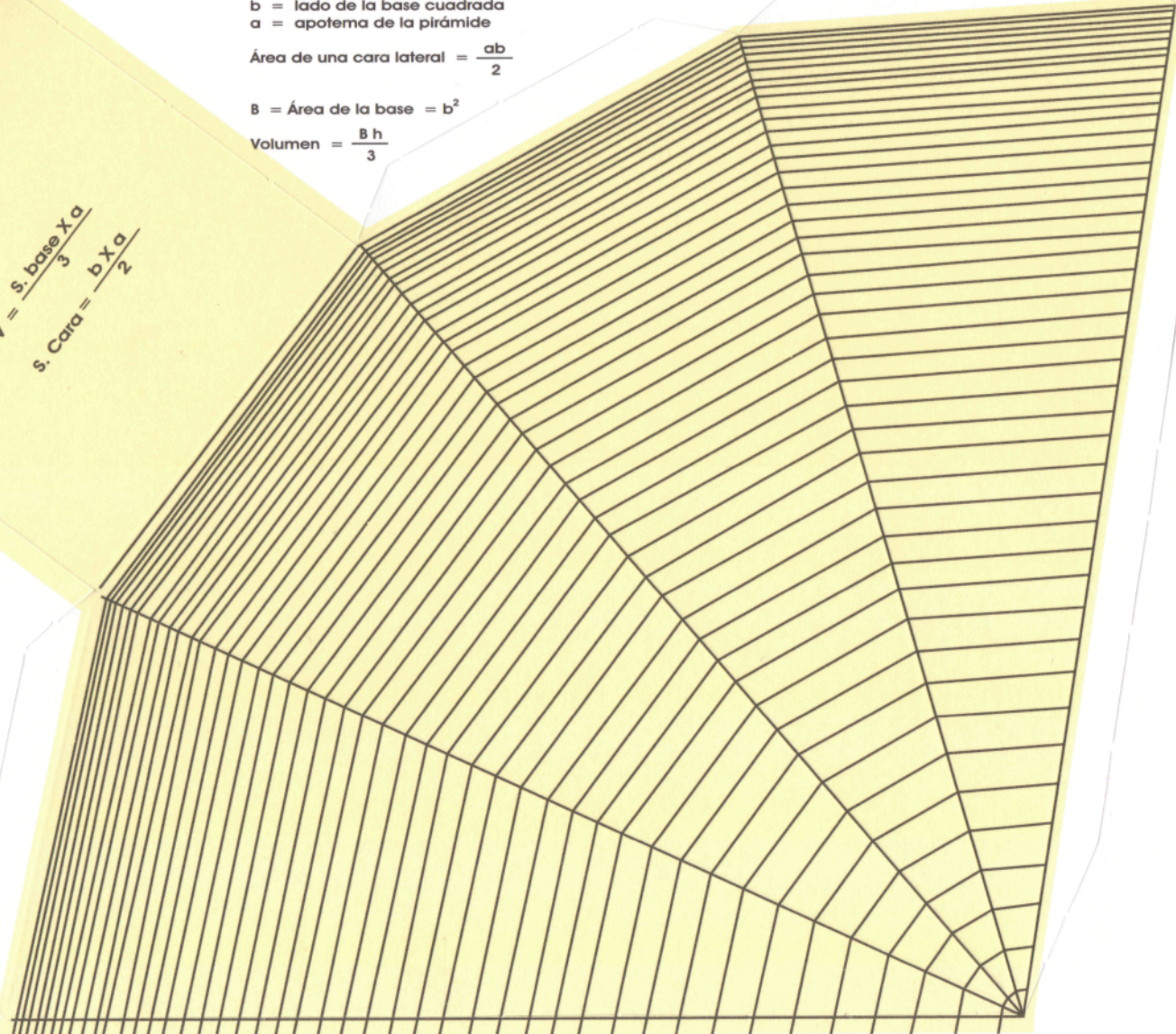
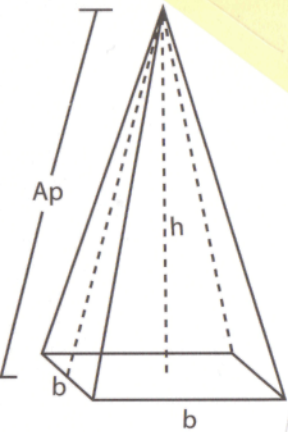
$h$  = altura de la pirámide  
 $b$  = lado de la base cuadrada  
 $a$  = apotema de la pirámide

$$\text{Área de una cara lateral} = \frac{ab}{2}$$

$$B = \text{Área de la base} = b^2$$

$$\text{Volumen} = \frac{B h}{3}$$

$$V = \frac{\text{s. base} \times a}{3}$$
$$\text{s. Cara} = \frac{b \times a}{2}$$





## 5 Pirámide Pentagonal

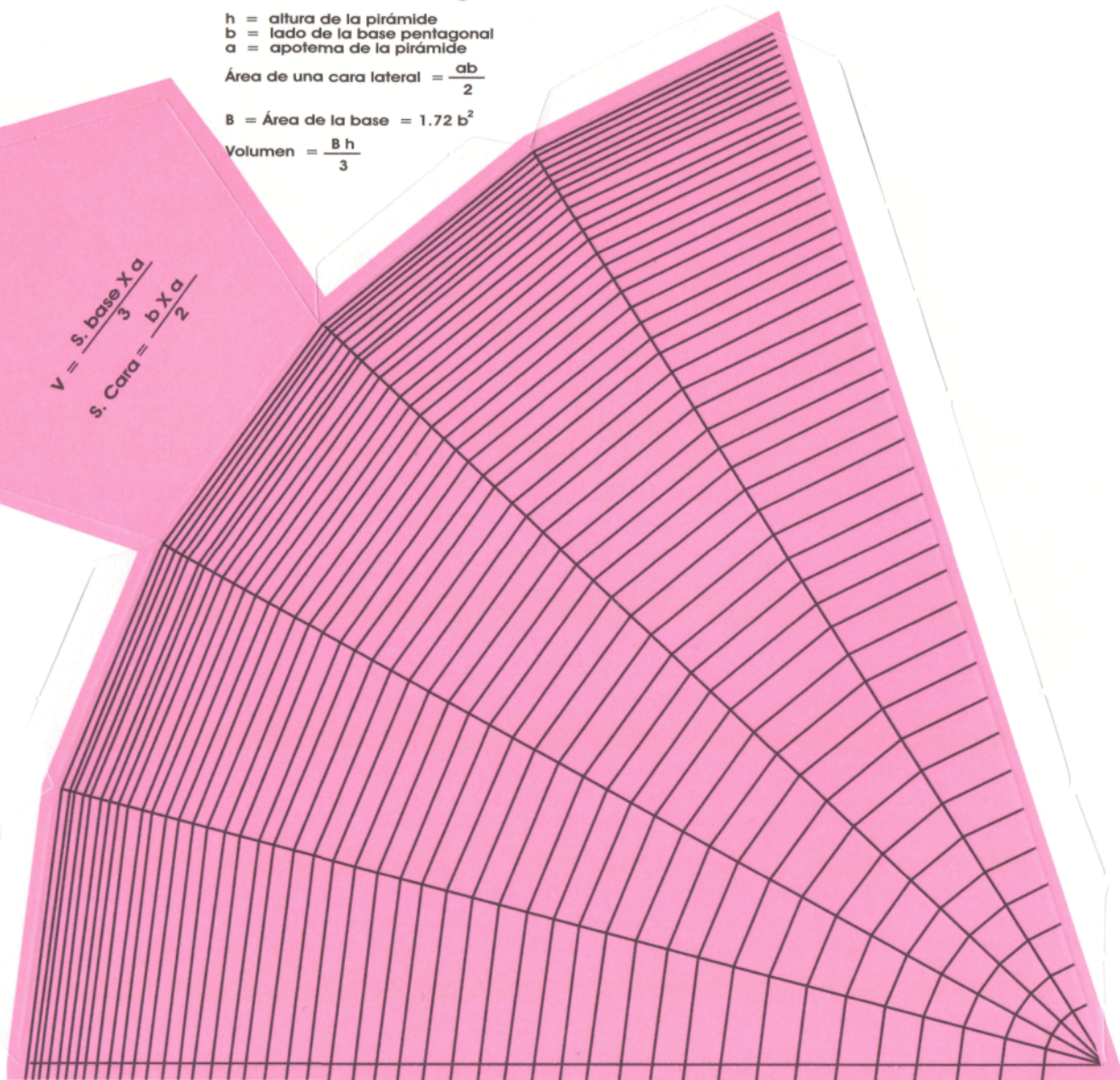
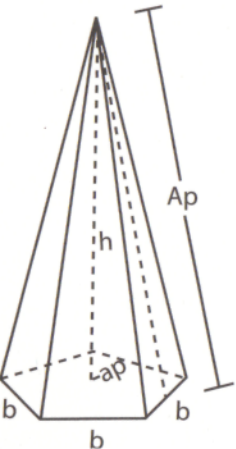
$h$  = altura de la pirámide  
 $b$  = lado de la base pentagonal  
 $a$  = apotema de la pirámide

$$\text{Área de una cara lateral} = \frac{ab}{2}$$

$$B = \text{Área de la base} = 1.72 b^2$$

$$\text{Volumen} = \frac{B h}{3}$$

$$V = \frac{s. \text{ base} \times a}{3}$$
$$s. \text{ Cara} = \frac{b \times a}{2}$$





## 6 Pirámide hexagonal

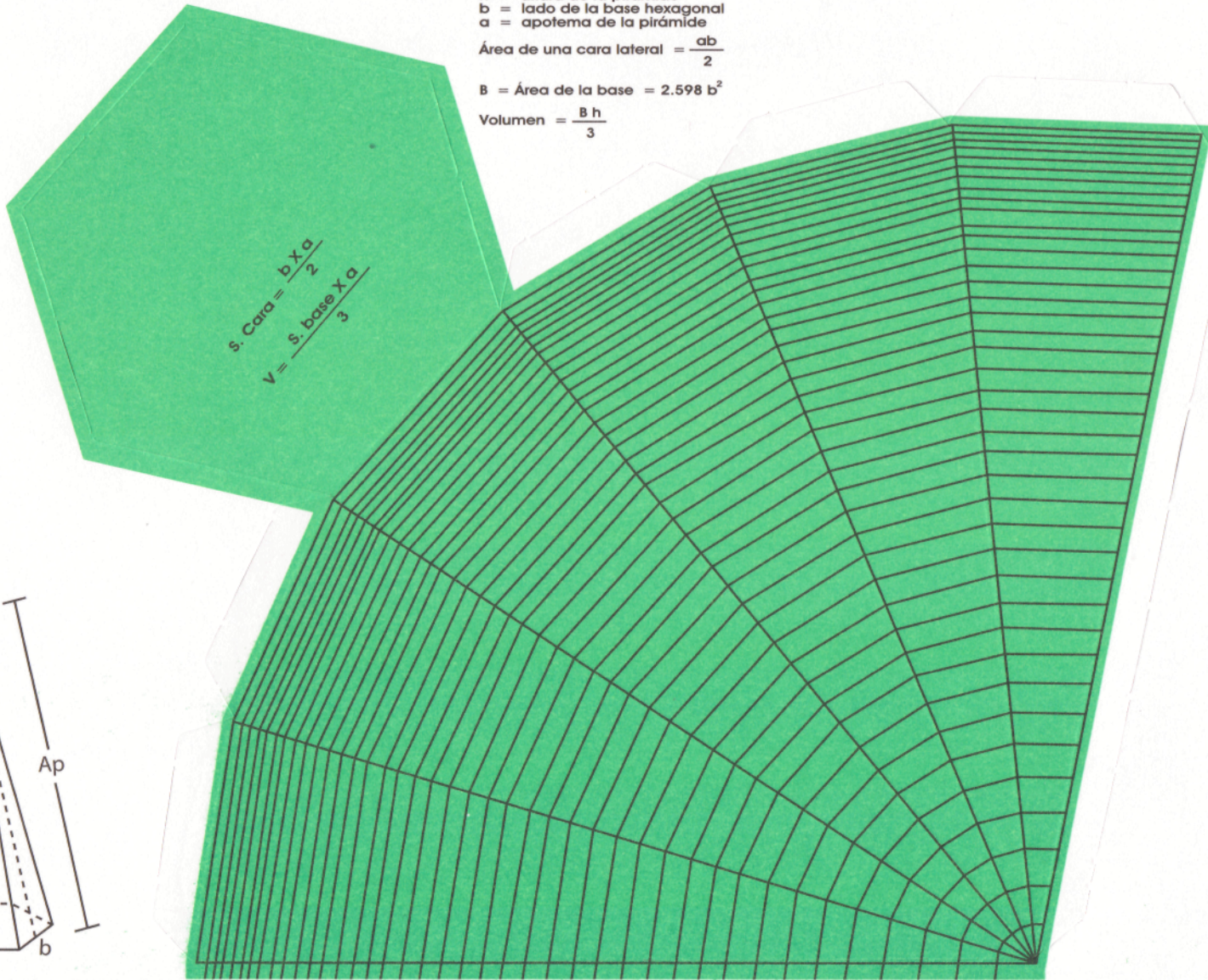
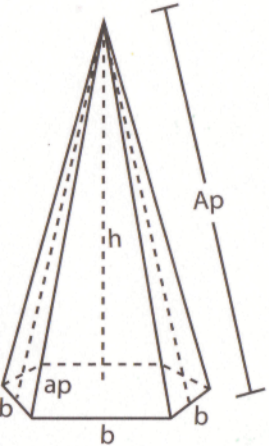
h = altura de la pirámide  
b = lado de la base hexagonal  
a = apotema de la pirámide

$$\text{Área de una cara lateral} = \frac{ab}{2}$$

$$B = \text{Área de la base} = 2.598 b^2$$

$$\text{Volumen} = \frac{B h}{3}$$

$$\begin{aligned} \text{s. Cara} &= \frac{b \times a}{2} \\ V &= \frac{\text{s. base} \times a}{3} \end{aligned}$$





## 7 Pirámide octagonal

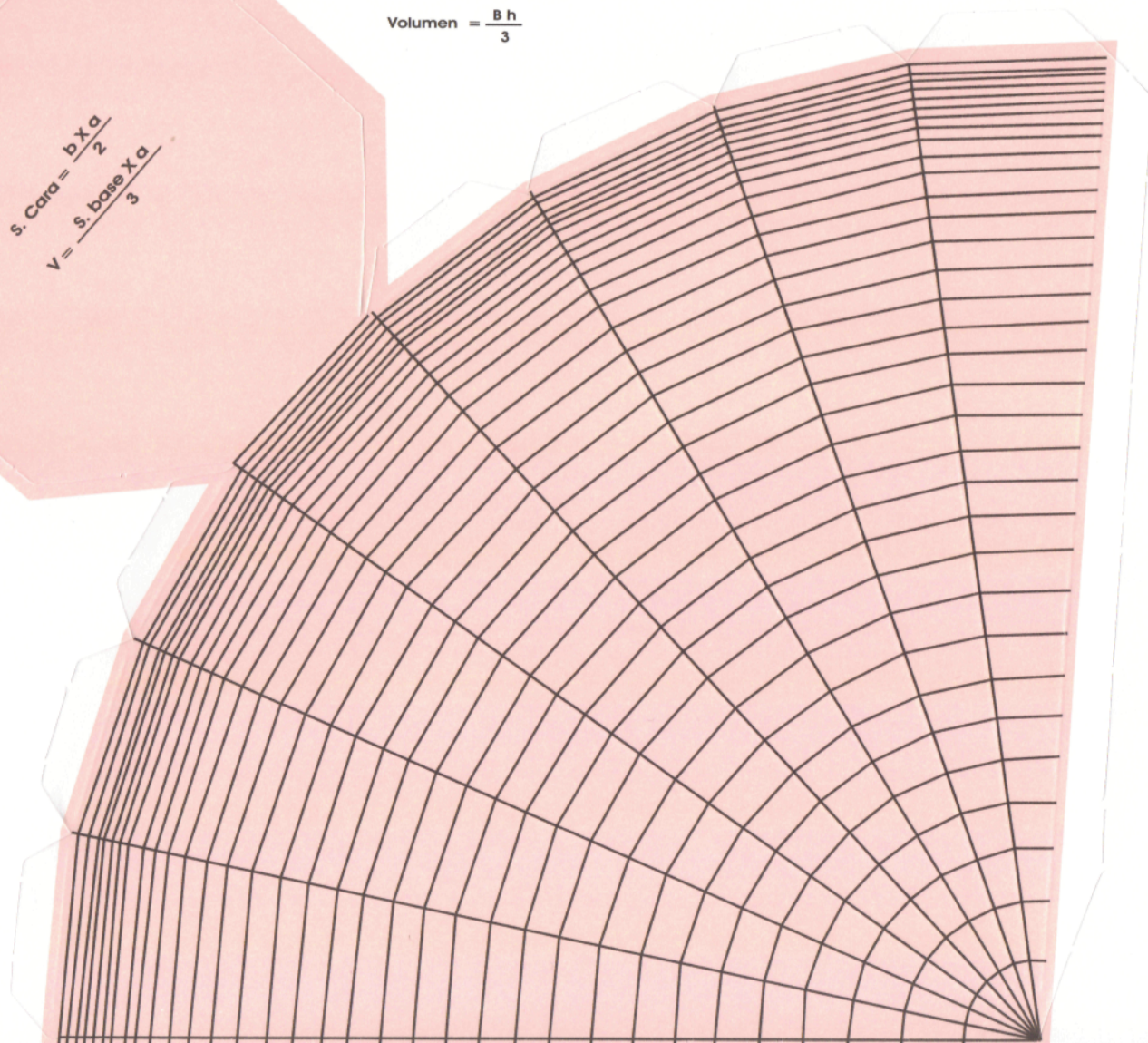
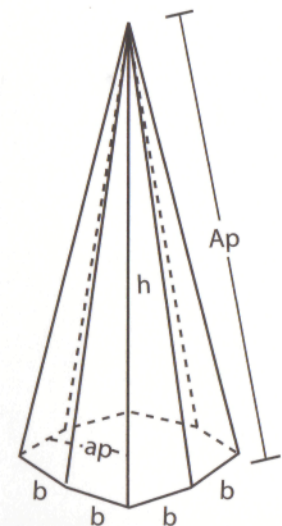
h = altura de la pirámide  
b = lado de la base octagonal  
a = apotema de la pirámide

$$\text{Área de una cara lateral} = \frac{ab}{2}$$

$$B = \text{Área de la base} = 4.828b^2$$

$$\text{Volumen} = \frac{B h}{3}$$

$$\begin{aligned} \text{s. Cara} &= \frac{b \times a}{2} \\ V &= \frac{\text{s. base} \times a}{3} \end{aligned}$$





## 8 Pirámide cuadrangular truncada

No. 8 Pirámide cuadrangular truncada

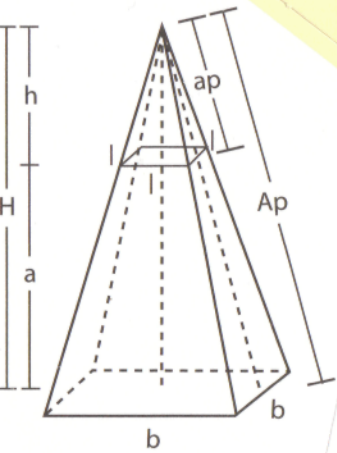
$h$  = altura de la pirámide truncada

$a$  = apotema de la pirámide

$b$  = lado de la base menor

$c$  = lado de la base mayor

$$V = A_{\text{tot.}} \times ab$$



$$\text{Área de una cara lateral} = \frac{(b + c)}{2} h$$

$$\text{Área de la base menor} = b^2$$

$$\text{Área de la base mayor} = c^2$$

$$\text{Volumen} = \frac{1}{3} h (b^2 + bc + c^2)$$



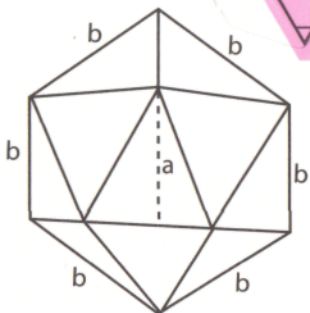
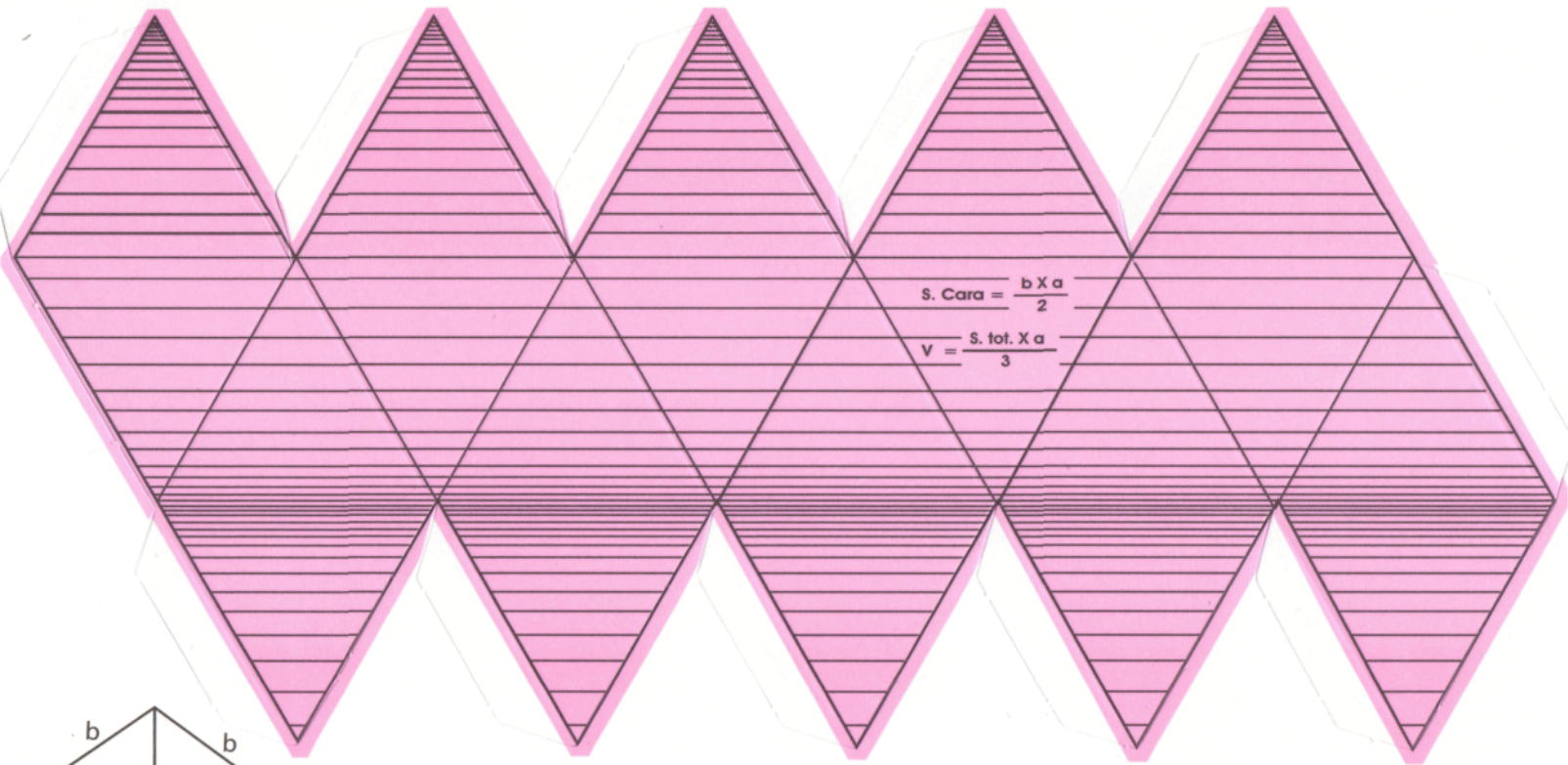
# 9 Icosaedro

$a$  = arista

Área de una cara =  $0.433 a^2$

Área total =  $8.66 a^2$

Volumen =  $2.1817 a^3$





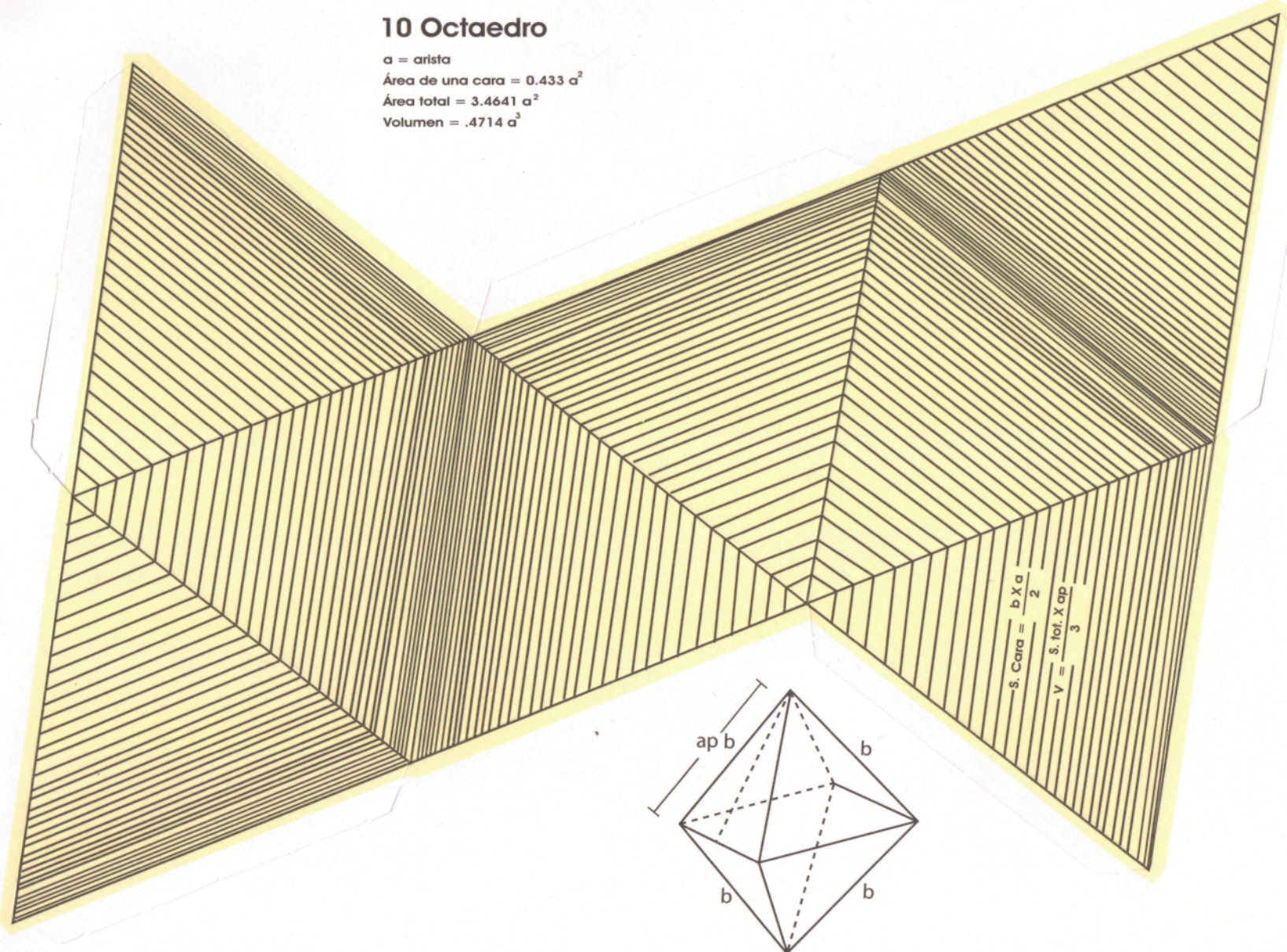
# 10 Octaedro

$a$  = arista

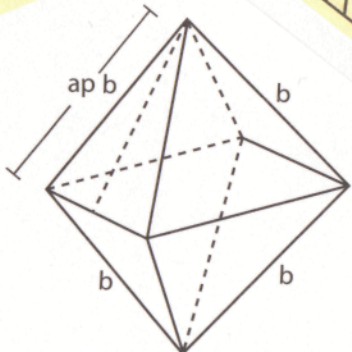
Área de una cara =  $0.433 a^2$

Área total =  $3.4641 a^2$

Volumen =  $.4714 a^3$



$$S, \text{ Cara} = \frac{b \times a}{2}$$
$$V = \frac{S, \text{ tot.} \times ap}{3}$$





## 11 Dodecaedro

$a$  = arista

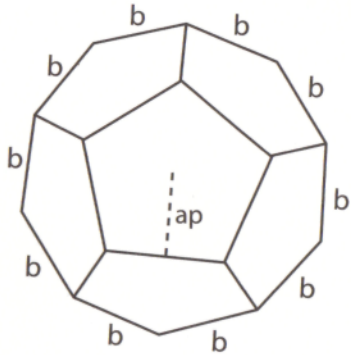
Área de una cara =  $1.7205 a^2$

Área total =  $20.6457 a^2$

Volumen =  $7.6631 a^3$

$$V = \frac{S. \text{ tot. } \times ap}{3}$$

$$S. \text{ Cara} = \frac{p \times ap}{2}$$





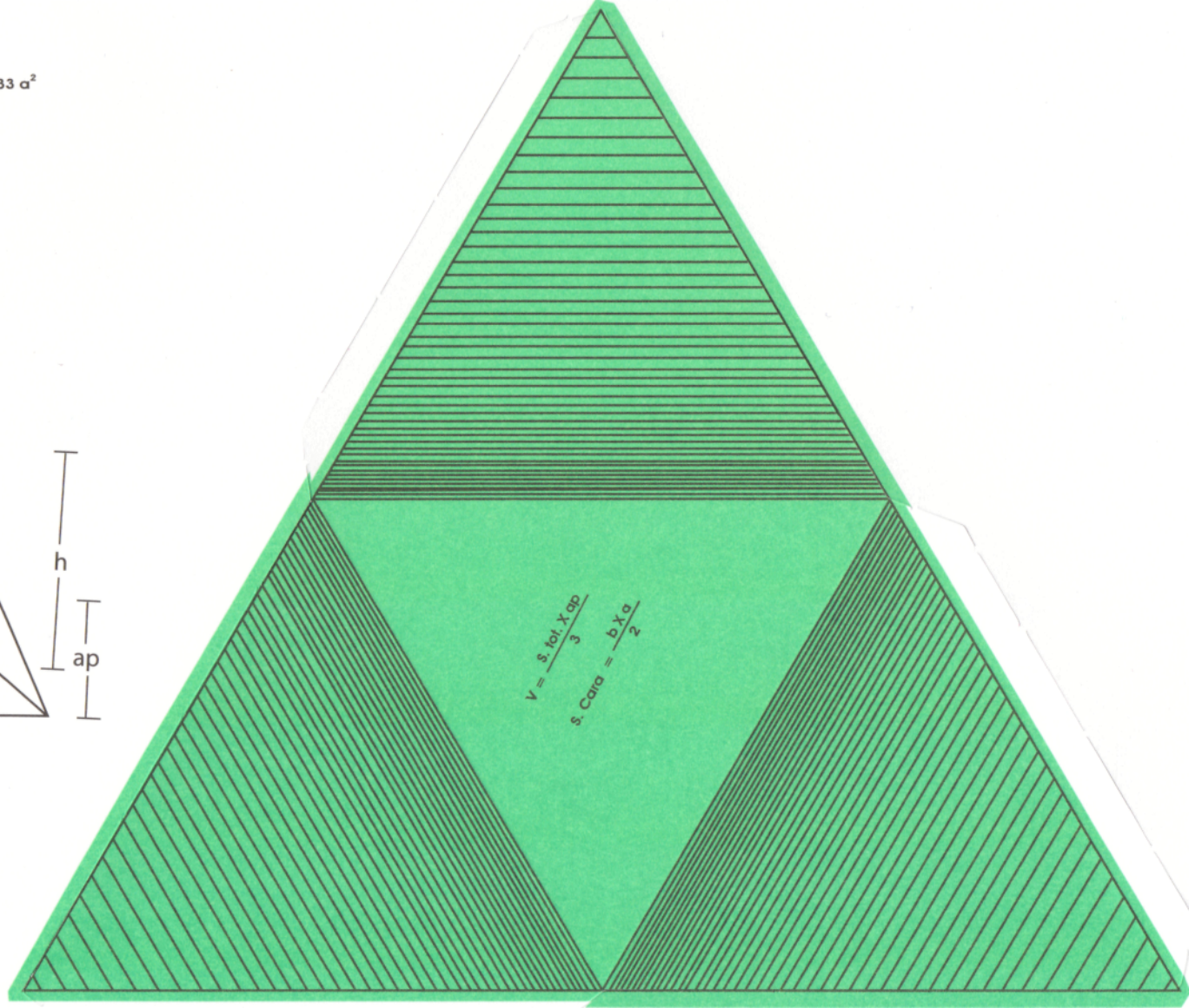
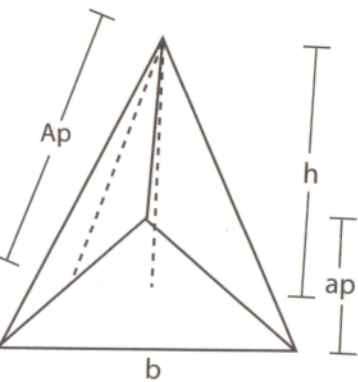
## 12 Tetraedro

$a$  = arista

Área de una cara =  $0.433 a^2$

Área total =  $1.732 a^2$

Volumen =  $0.1179 a^3$





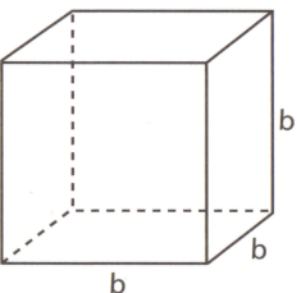
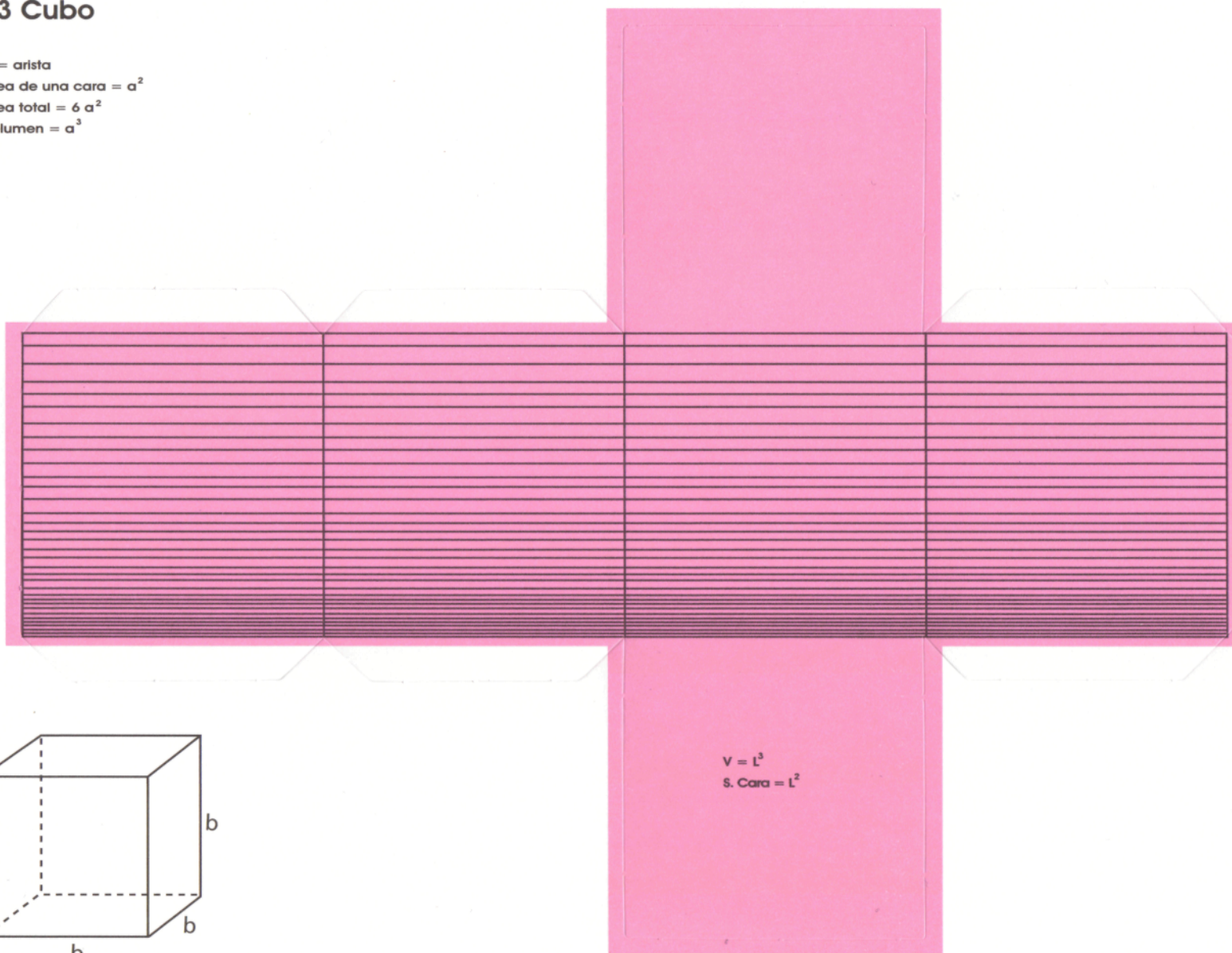
# 13 Cubo

$a$  = arista

Área de una cara =  $a^2$

Área total =  $6 a^2$

Volumen =  $a^3$



$$V = l^3$$

$$S. \text{ Cara} = l^2$$

# 14 Prisma triangular

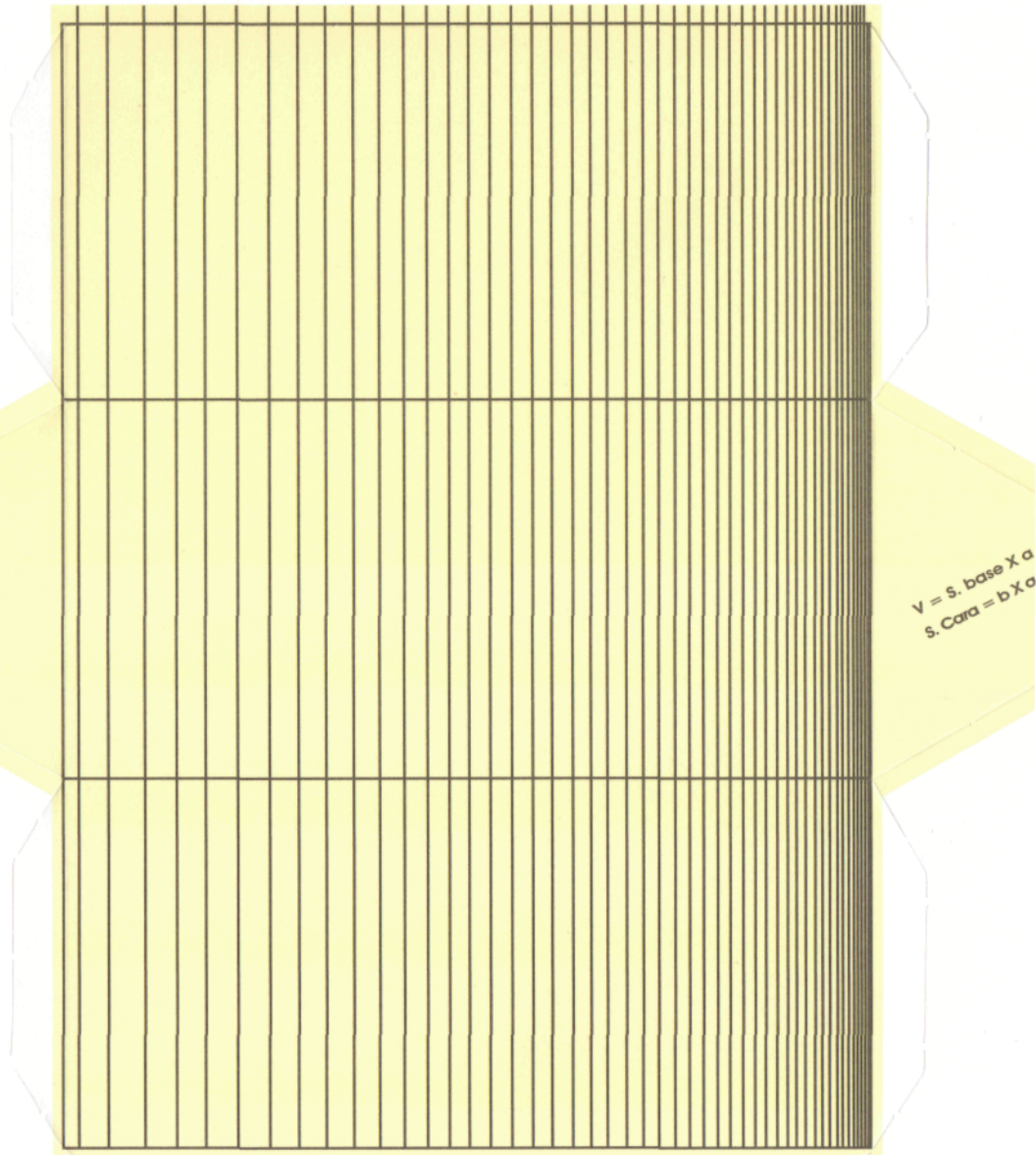
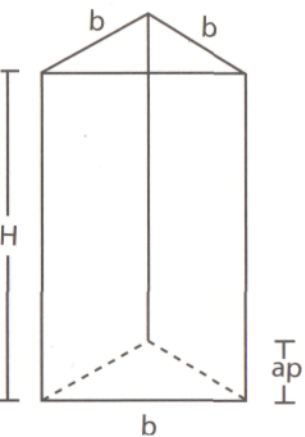
$h$  = altura del prisma

$a$  = lado de la base equilatera

Área de una cara lateral =  $ah$

$B$  = Área de la base =  $0.433 a^2$

Volumen =  $B h$





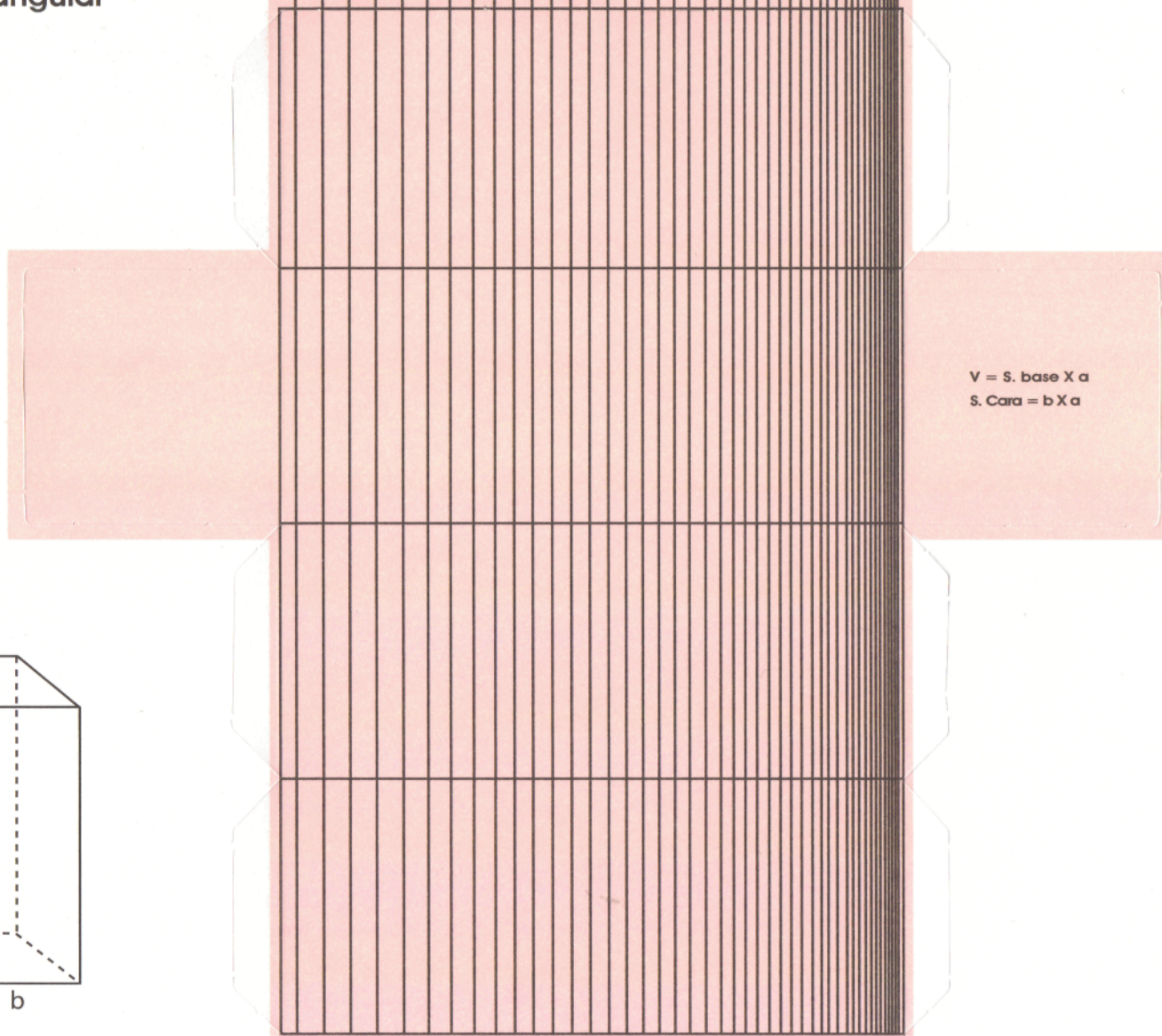
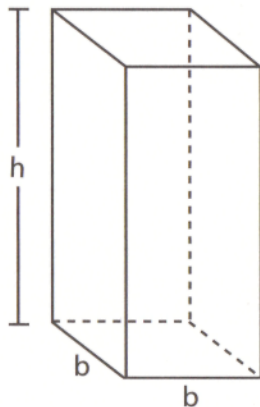
## 15 Prisma cuadrangular

$h$  = altura del prisma

$a$  = lado de la base cuadrada

Área de una base =  $a^2$

Volumen =  $B h$





# 16 Prisma pentagonal

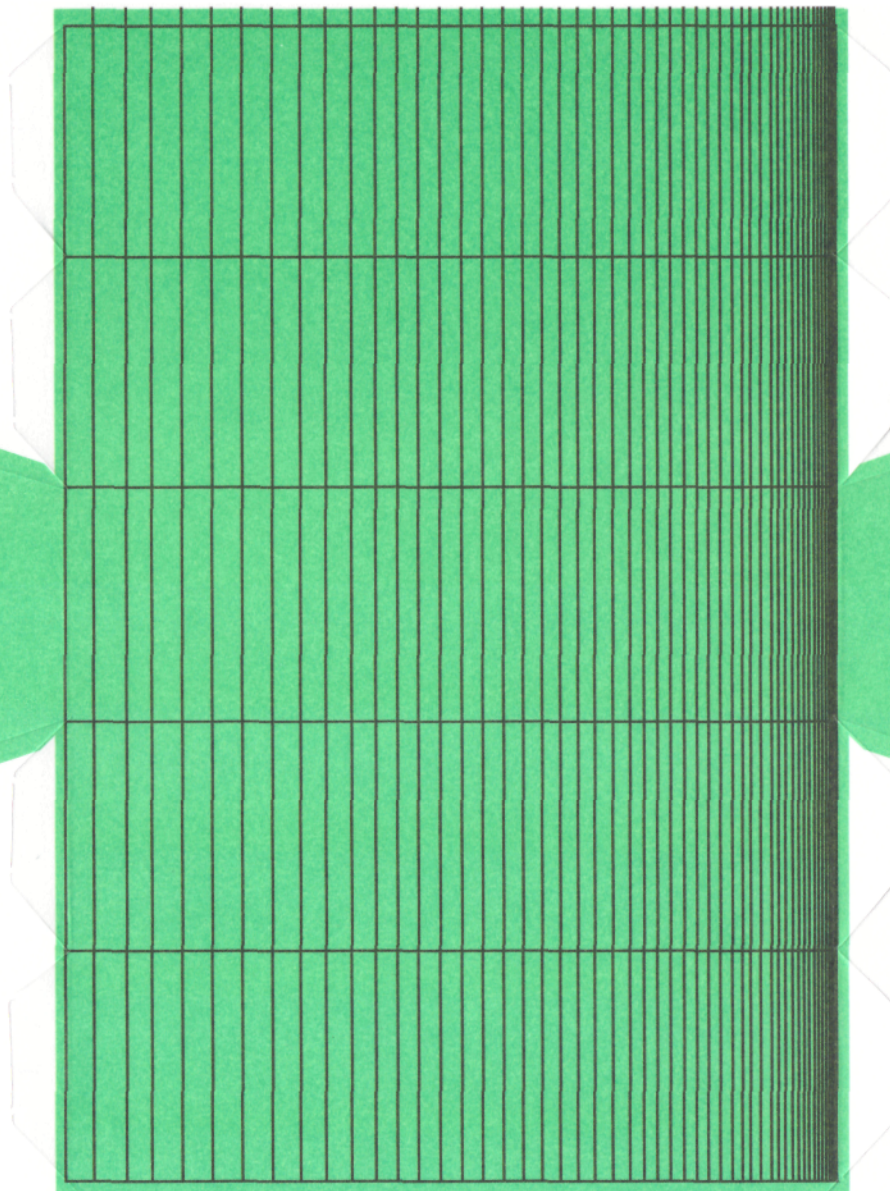
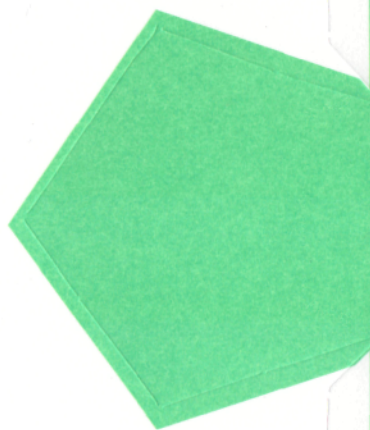
$h$  = altura del prisma

$a$  = lado de la base pentagonal

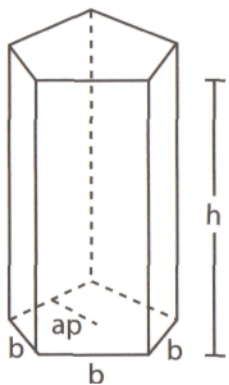
Área de una cara lateral =  $a h$

$B$  = Área de una base =  $1.72 a^2$

Volumen =  $B h$



$V = S. \text{ base } \times a$   
 $S. \text{ Cara} = b \times a$



# 17 Prisma hexagonal

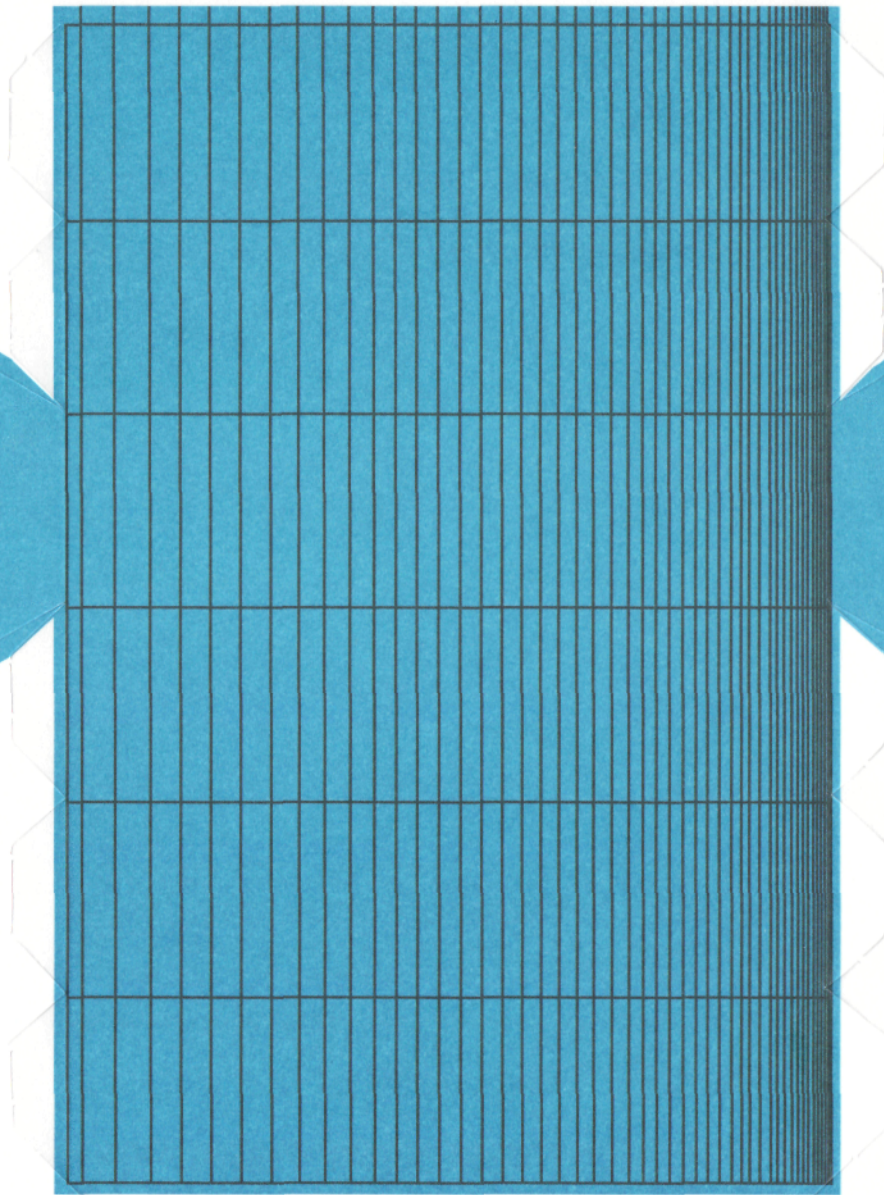
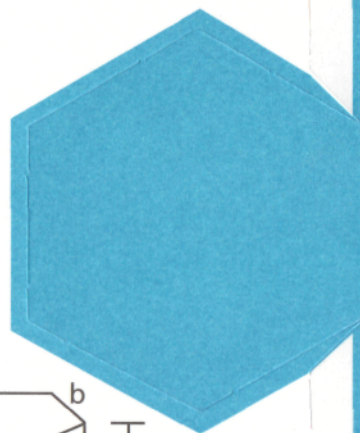
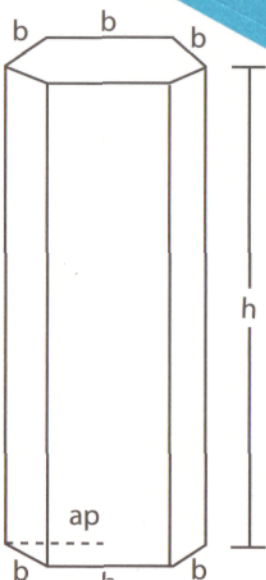
$h$  = altura del prisma

$a$  = lado de la base hexagonal

Área de una cara lateral =  $a h$

$B$  = Área de una base =  $2.598 a^2$

Volumen =  $B h$





# 18 Paralelepipedo

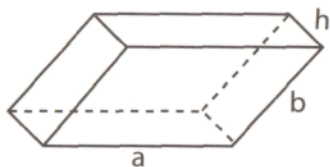
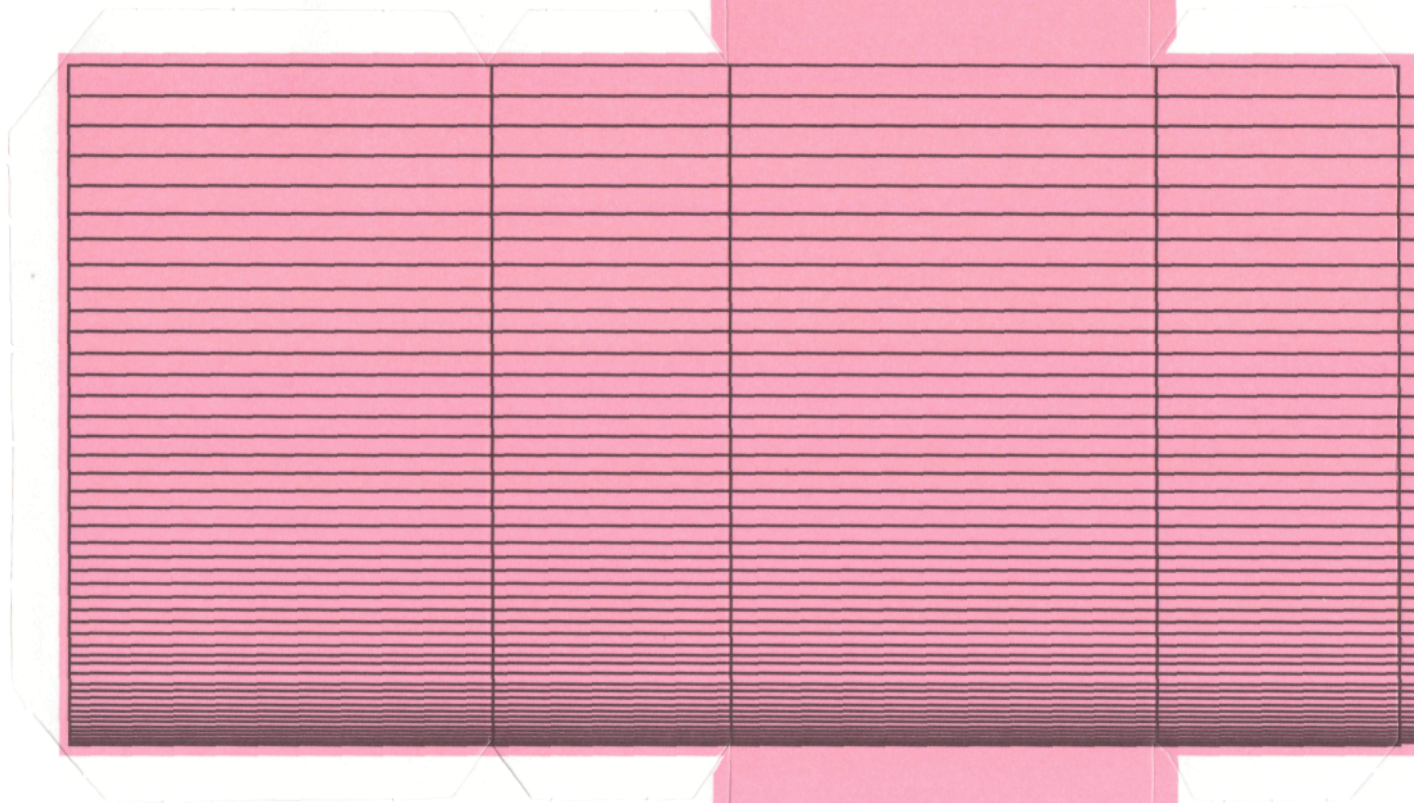
a = ancho

b = largo

h = altura

Área de una base = a b

Volumen = a b h

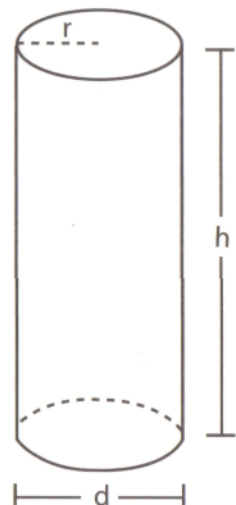
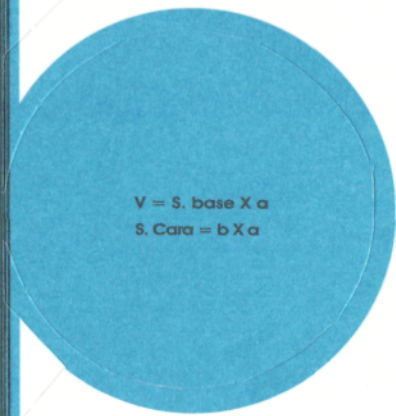
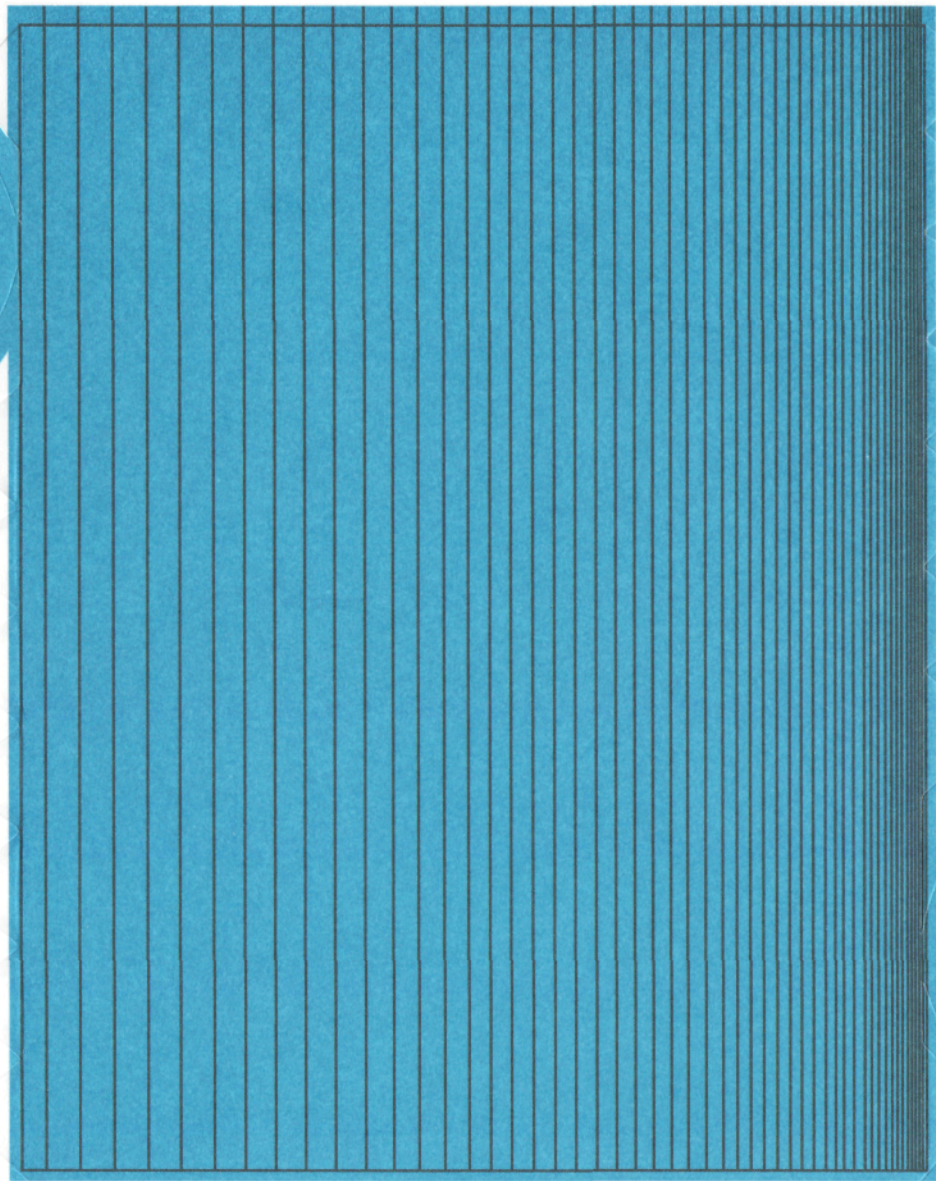
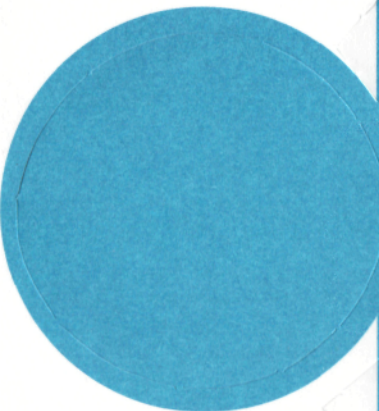


$$V = S. \text{ base } \times a$$

$$S. \text{ Cara} = b \times a$$

## 19 Cilindro

$h$  = altura del cilindro  
 $r$  = radio de la base circular  
 $B$  = Área de una base =  $\pi r^2$   
Volumen =  $B h$



$V = S_{\text{base}} \times a$   
 $S_{\text{Cara}} = b \times a$

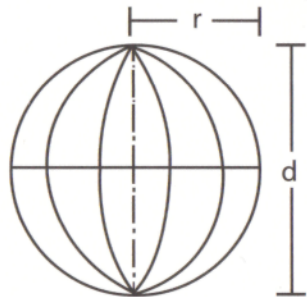
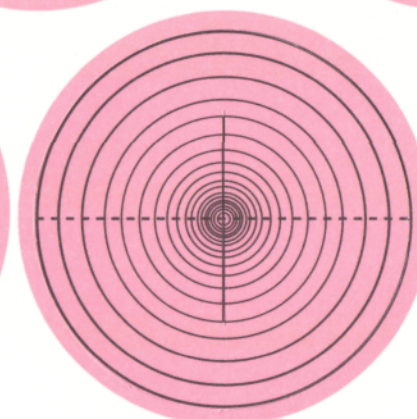
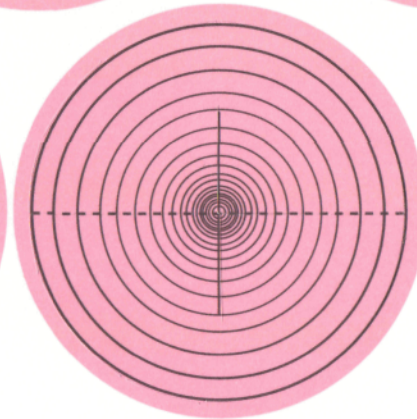
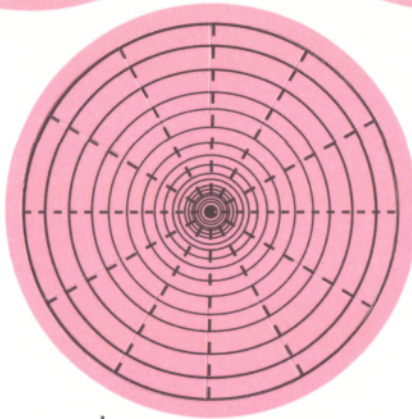
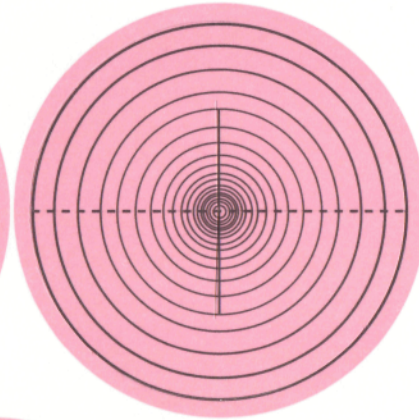
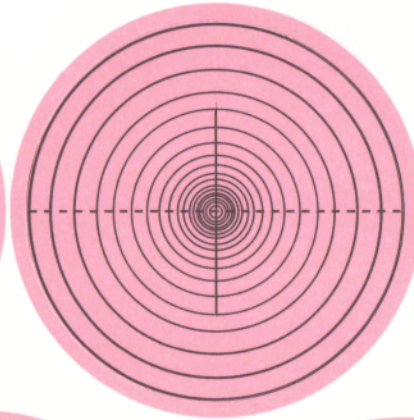
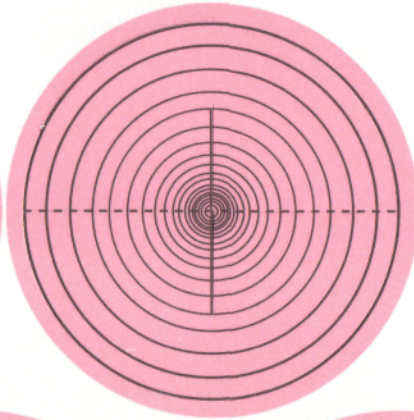
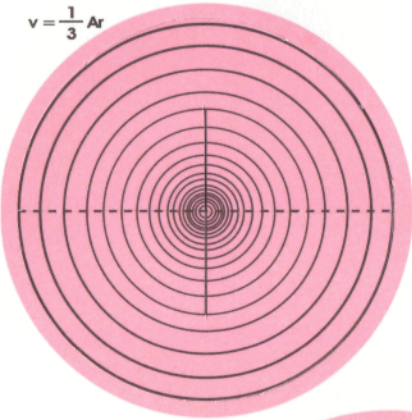


## 20 Esfera

$r$  = radio de la esfera

$A$  = Área de la esfera =  $4\pi r^2$

$$v = \frac{1}{3} Ar$$



$$S. = \pi r^2 \times 4$$

$$v = \frac{S \times r}{3}$$